2007 City Drinking Water Quality Report

Definitions

Public Health Goal (PHG)
The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Contaminant Level Goal (MCLG)
The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Contaminant Level (MCLs)
The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Residual Disinfectant Level Goal (MRDLG)
The level of a disinfectant (chlorine) added for water treatment below which there is no known or expected risk to heath. MRDLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL)
The level of a disinfectant (chlorine) added for water treatment that may not be exceeded at the consumer's tap.

Regulatory Action Level (AL)
The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

Treatment Technique (TT)
A required process intended to reduce the level of contaminant in drinking water.

Primary Drinking Water Standards (PDWS)
MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements and water treatment requirements.

Secondary Drinking Water Standards (SDWS)
MCLs for contaminants that effect taste, odor, or appearance of drinking water. Contaminants with SDWS do not affect the health at MCL levels.

Unregulated Contaminant Monitoring Regulations (UCMR)
Data generated by the new UCMR will be used to evaluate and prioritize contaminants on the Drinking Water Contaminant Candidate List, a list of contaminants EPA is considering for possible new drinking water standards. Also known as "State Regulated Contaminants with No MCLs".

Legend

µg/L: Micrograms per liter (parts per billion)
mg/L : Milligrams per liter (parts per million)
ND: Not detected at testing limit
NTU: Nephelometric Turbidity Units
pCi/L : PicoCuries per liter (a measure of radiation)
mmho/cm: Micromhos per centimeter
DBP: Disinfection Byproducts
NA: Not applicable or no standard or no data

SUBSTANCE (Parameter)	Public Health Goal	Maximum Contaminant Level	Surface Water: Range Detected	Surface Water: Reporting Value	Groundwater: Range Detected	Groundwater: Reporting Value	Major Source in Drinking Water
PRIMARY STANDARDS							
Regulated Contaminants with Primary MCLs or MRDLs							
Microbiological Contaminants							
Total Coliform Bacteria	0	5% of monthly samples	0%	0%	0%	0%	Naturally present in the environment
Turbidity (NTU)	NA	TT = 1 NTU	0.02 - 0.06	0.06	See table below	See table below	Natural river sediment/soil run-off
		TT = 95% of samples ≤0.3 NTU	NA	100%			
Inorganic Contaminants							
Fluoride (mg/L)	1	2.0	0.33 – 0.49	0.42	0.17 – 0.73	0.37	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer factories
Aluminum (µg/L)	600	1000	23 – 263	104	5 – 51	25	Erosion of natural deposits
Nitrate (mg/L)	45 as NO_3	45	ND	ND	3.49 – 24.5	8.5	Erosion of natural deposits; runoff from fertilizer use
Barium (mg/L)	2	1	No Range	ND	No Range	0.004	Erosion of natural deposits
Uranium (µg/L)	NA	30	2.40 - 2.86	2.55	ND - 9.50	2.12	Erosion of natural deposits
Disinfection Byproducts, Residuals, and Byproduct Precursors							
Total Trihalomethanes (µg/L)	NA	Running Average 80	3.2 – 92	60.8	3.2 – 92	60.8	By-product of drinking water chlorination
Haloacetic acids (µg/L)	NA	60	ND – 24	12.4	ND – 24	12.4	By-product of water disinfection
Disinfectant-Free Chlorine Residual (mg/L)	MRDLG as Cl_2 4.0	MRDL as Cl_2 4.0	ND – 1.56	0.60	ND – 1.56	0.60	Drinking water disinfectant added to treatment
Control of DBP Precursors–TOC (mg/L)	NA	Treatment Requirements	2.28 – 3.07	2.69	0.20 - 0.61	0.36	Total Organic Carbon (TOC) has no health effects. However, it provides a medium for the formation of disinfection byproducts. Various natural & manmade sources.
Volatile Organics							
Tetrachloroethylene (PCE) (µg/L)	0.06	5	No Range	ND	ND – 3.4	0.68	Discharge from factories, dry cleaners, and auto shops
UCMR *Unregulated Contaminants*							
Boron (µg/L)	NA	1000 (AL)	260 – 270	265	NA	NA	
Vanadium (µg/L)	NA	50 (AL)	ND – 4.9	2.2	NA	NA	
Chromium VI (µg/L)	NA	NA	ND	ND	ND - 2.3	ND	
Lead/Copper Rules *Monitored at the Customer's Tap Number of sites exceeded Action Level = 0*							
Copper (mg/L)	0.17	1.3 (AL)	ND – 0.474	0.079	ND – 0.474	0.079	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (µg/L)	2	15 (AL)	ND – 4.0	2.4	ND – 4.0	2.4	
Radiochemistry *Radioactive Contaminants*							
Radon (pCi/L)	NA	NA	ND	ND	ND – 350	312	See reporting notice on radon in this report
Gross Alpha Particle Activity (pCi/L)	NA	15	ND	ND	ND – 3.7	ND	Erosion of natural deposits
SECONDARY STANDARDS		*Aesthetic Standards Established By the State of California, Department of Health Services.*					
Regulated Contaminants with Secondary MCLs		*No adverse health affects from exceedence of standards.*					
Groundwater Turbidity (NTU)	NA	TT = 5 NTU	See table above	See table above	0.09 – 0.64	0.64	Natural river sediment soil run-off
		TT = 95% of samples ≤1.0 NTU			NA	100%	
Threshold Odor Number at 60 °C	NA	3	6 – 12	9	8 – 25	15	Naturally occurring organic materials
Color (Units)	NA	15	ND	ND	ND -5	ND	Naturally occurring organic materials
Chloride (mg/L)	NA	500	16 – 20	18	40 – 202	93	Run-off / leaching from natural deposits; seawater influence
Copper (mg/L)	NA	1.0	ND	ND	ND -0.03	0.003	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron (mg/L)	NA	0.3	ND	ND	ND - 0.15	0.07	Leaching from natural deposits
Sulfate (mg/L)	NA	500	246 – 281	264	154 – 290	221	Run-off / leaching from natural deposits
Specific Conductance (µmhos/cm)	NA	1600	849 – 928	880	847 – 1720	1145	Run-off / leaching from natural deposits; seawater influence
Total Dissolved Solids (mg/L)	NA	1000	598 – 677	641	584 – 1294	822	Run-off / leaching from natural deposits
Additional Constituents							
pH (units)	NA	NA	7.92 – 8.27	8.15	6.74 – 7.72	7.00	
Total Hardness as $CaCO_3$ (mg/L)	NA	NA	267 – 404	374	305 – 670	454	
Total Alkalinity as $CaCO_3$ (mg/L)	NA	NA	172 – 194	182	164 – 296	234	
Calcium as Ca (mg/L)	NA	NA	80 – 91	86	85 – 166	121	
Magnesium (mg/L)	NA	NA	37 – 44	40	22 – 70	39	
Sodium (mg/L)	NA	NA	39 – 47	43	41 – 105	64	
Potassium (mg/L)	NA	NA	2.5 – 5.1	3.0	1.1 – 3.6	1.9	

Note: Listed in the table above are substances detected in the City's drinking water. Not listed are more than 135 regulated and unregulated substances that were below the laboratory detection level. The City has received an extension to comply with the new Federal drinking water standards for disinfection by-products. Nonetheless, the City is currently meeting the new standards.